

Listing of the Claims:

Claims 1-2 (Canceled).

Claim 3 (Currently Amended): A natural language processing apparatus according to claim ~~2~~ 27, wherein: plural natural language patterns with different meaning information are prepared in plural natural language patterns with information on meaning conditions as one of the pattern application conditions; and
a tree structure with appropriate meaning information is decided through the pattern inspection means and the pattern application means.

Claim 4 (Currently Amended): A natural language processing apparatus according to claim ~~1~~ 27, wherein information on a priority of a application is attached to the natural language patterns prepared in a pattern dictionary in advance,
the natural language processing apparatus ~~according to claim 1~~ further comprising pattern evaluation means for evaluating the natural language patterns applicable for a tree structure according to the priority information attached thereto.

Claim 5 (Original): A natural language processing apparatus according to claim 4, wherein: in pattern components, the priority of natural language pattern with meaning conditions is set high among the natural language patterns with only the difference whether having or not the meaning conditions; and

in pattern name, the priority of natural language pattern without meaning conditions is set high among the natural language patterns with only the difference whether having or not the meaning conditions.

Claim 6 (Original): A natural language processing apparatus according to claim 4, wherein the pattern evaluation means pass over the applicable natural language patterns other than the applicable natural language pattern with the highest priority when plural natural language patterns with the same pattern name and the same pattern application condition and with different information on priority exist.

Claim 7 (Currently Amended): A natural language processing apparatus according to claim 4, wherein the pattern evaluation means pass over the applicable natural language patterns with the priority relatively lower than ~~the~~ a normal priority when plural natural language patterns with the same pattern name and the same pattern application condition and with different information on priority exist.

Claim 8 (Currently Amended): A natural language processing apparatus according to claim 4, ~~wherein~~ further comprising tree structure evaluation means ~~are comprised~~ for evaluating the priority between plural tree structures according to evaluation and allotment means capable of evaluating each ~~of~~ tree structure when the tree structures achieved by the syntax analysis and/or the syntax generation are plural, the evaluation and allotment means in which the priority information in the natural language patterns is applied to the sectional tree different in the plural tree structures.

Claim 9 (Currently Amended): A natural language processing apparatus according to claim 8, wherein the tree structure evaluation means reflect the priority information in the natural language patterns applied to the tree structure and reflect ~~the~~ a number of terminal numerals constructing the sectional tree different in the plural tree structures in the evaluation and allotment means.

Claim 10 (Original): A natural language processing apparatus according to claim 8, wherein the tree structure evaluation means reflect the priority information in the natural language patterns applied to the tree structure and reflect the location of node related to a specified priority in the evaluation and allotment means.

Claim 11 (Currently Amended): A natural language processing apparatus according to claim ~~1~~ 27 comprising user registration means of natural language patterns.

Claim 12 (Original): A natural language processing apparatus according to claim 11, wherein the priority higher than that of the natural language patterns of system registration is set on the user registration of natural language patterns.

Claim 13 (Currently Amended): A natural language processing apparatus according to claim 11, ~~wherein~~ further comprising tree structure evaluation means ~~are comprised~~ for setting the highest priority on the tree structure with the sectional tree to which the natural language pattern related to user registration is applied in the sectional

tree different in the plural tree structures when the tree structures achieved by the syntax analysis and/or the syntax generation are plural.

Claims 14-15 (Canceled).

Claim 16 (Currently Amended): A natural language processing method according to claim ~~15~~ 31 wherein: plural natural language patterns with different meaning information are prepared in plural natural language patterns with information on meaning conditions as one of the pattern application conditions; and

a tree structure with appropriate meaning information is decided through the pattern inspection step and the pattern application step.

Claim 17 (Currently Amended): A natural language processing method according to claim ~~14~~ 31, wherein information on a priority of a application is attached to the natural language patterns prepared in a pattern dictionary in advance,

the natural language processing method ~~according to claim 14~~ further comprising pattern evaluation step for evaluating the natural language patterns applicable for a tree structure according to the priority information attached thereto.

Claim 18 (Original): A natural language processing method according to claim 17, wherein: in pattern components, the priority of natural language pattern with meaning conditions is set high among the natural language patterns with only the difference whether having or not the meaning conditions; and

in pattern name, the priority of natural language pattern without meaning conditions is set high among the natural language patterns with only the difference whether having or not the meaning conditions.

Claim 19 (Original): A natural language processing method according to claim 17, wherein the pattern evaluation step passes over the applicable natural language patterns other than the applicable natural language pattern with the highest priority when plural natural language patterns with the same pattern name and the same pattern application condition and with different information on priority exist.

Claim 20 (Original): A natural language processing method according to claim 17, wherein the pattern evaluation step passes over the applicable natural language patterns with the priority relatively lower than ~~the~~ a normal priority when plural natural language patterns with the same pattern name and the same pattern application condition and with different information on priority exist.

Claim 21 (Currently Amended): A natural language processing method according to claim 17, ~~wherein~~ further comprising a tree structure evaluation step is ~~comprised~~ for evaluating the priority between plural tree structures according to evaluation and allotment means capable of evaluating each ~~of~~ tree structure when the tree structures achieved by the syntax analysis and/or the syntax generation are plural, the evaluation and allotment means in which the priority information in the natural language patterns is applied to the sectional tree different in the plural tree structures.

Claim 22 (Currently Amended): A natural language processing method according to claim 21, wherein the tree structure evaluation step reflects the priority information in the natural language patterns applied to the tree structure and reflect the a number of terminal numerals constructing the sectional tree different in the plural tree structures in the evaluation and allotment means.

Claim 23 (Original): A natural language processing method according to claim 21, wherein the tree structure evaluation step reflects the priority information in the natural language patterns applied to the tree structure and reflect the location of node related to a specified priority in the evaluation and allotment means.

Claim 24 (Currently Amended): A natural language processing method according to claim ~~14~~ 31 comprising user registration means of natural language patterns.

Claim 25 (Original): A natural language processing method according to claim 24, wherein the priority higher than that of the natural language patterns of system registration is set on the user registration of natural language patterns.

Claim 26 (Currently Amended): A natural language processing method according to claim 24, ~~wherein~~ further comprising a tree structure evaluation step is ~~comprised~~ for setting the highest priority on the tree structure with the sectional tree to which the natural language pattern related to user registration is applied in the sectional

tree different in the plural tree structures when the tree structures achieved by the syntax analysis and/or the syntax generation are plural.

Claim 27 (Currently Amended): A natural language processing apparatus for achieving a syntax analysis and/or a syntax generation by using natural language patterns with language name, ~~left side and right side~~ syntax pattern name (left side) and pattern component (right side) list of an source language pattern and a target language pattern,

the natural language processing apparatus comprising:

~~all or some of the natural language patterns prepared in~~ a pattern dictionary having stored therein natural language patterns in pairs that include the source language pattern and the target language pattern, each pair being formed in a string with, at least a language name, a pattern name given as a left side member and a pattern component given as a right side member, the source and target language patterns being stored in advance and having a feature indicated by feature information in various information used for a translation, which is present in the left side member and/or the right side member of a pattern, a feature restriction indicating a condition on information held in the feature and a central element information, appended to a central element, prescribing a central pattern element in a feature restriction or a feature propagation on the left and/or the right side;

a dictionary reference part that extracts at least one source language pattern and target language pattern from the pattern dictionary to be used in syntax analysis processing and syntax generation processing;

pattern inspection means for inspecting also the extracted source language pattern and target language pattern to determine whether or not in terms of the feature restriction whether the right side member of the source language pattern conforms to natural language patterns picked up as the ones applicable for the process of syntax analysis and/or the syntax generation among the natural language patterns prepared in a pattern dictionary in advance meet a tree structure or not based upon the feature restriction during the syntax analysis processing and to determine whether or not the left side member of the target language pattern conforms to a tree structure based upon the feature restriction during the syntax generation processing; and

pattern application means for applying the natural language patterns to the tree structure if the natural language patterns meet the tree structure, and for propagating the feature restriction if the natural language patterns have the central element information held by the central element in the right side member of the source language pattern to a node in the tree structure equivalent to the left side member and adding the feature information in the left side member as a node in the tree structure during syntax analysis processing when the right side member of the source language pattern conforms to the tree structure, and for adding the feature information present in the left side member of the target language pattern to a node in the tree structure equivalent to the central element in the right side member during syntax generation processing when the left side member of the target language pattern conforms to the tree structure.

Claim 28 (Currently Amended): A natural language processing apparatus according to claim 27 further comprising a feature definition table used to define feature

information that can be restricted based upon the non-terminal/terminal numerals wherein the pattern application means restrict the feature to be transmitted according to the definition which is defined per the nonterminal numeral and terminal numeral in transmitting feature information;

wherein the pattern application means propagates only a part of the feature information held at the central element included in the right side member of a source language pattern, the right side member thereof conforming to a tree structure, which is defined on the feature definition table in correspondence to a non-terminal numeral and a terminal numeral held at a node in the tree structure equivalent to the left side member thereof and adds only part of the feature information in the left side member, which is defined in the feature definition table in correspondence to a non-terminal numeral and a terminal numeral held at a node in the tree structure during syntax analysis processing;
and

wherein the pattern application means adds only part of the feature information in the left side member of a target language pattern, the left side member thereof conforming to a tree structure, which is defined in the feature definition table in correspondence to a non-terminal numeral and a terminal numeral held at a node in the tree structure equivalent to the central element in the right side member thereof during syntax generation processing.

Claim 29 (Original): A natural language processing apparatus according to claim 27 wherein the pattern inspection means and the pattern application means execute

a pattern-meeting inspection on and a pattern application to feature variable applied as a feature restriction in natural language patterns.

Claim 30 (Currently Amended): A natural language processing apparatus according to claim 27 wherein the natural language patterns registered in the pattern dictionary hold the feature restriction information in the form that logical operation can be smoothly achieved.

Claim 31 (Currently Amended): A natural language processing method for achieving a syntax analysis and/or a syntax generation by using natural language patterns with language name, syntax pattern name (left side) and pattern component (right side) list,

the natural language processing apparatus comprising: ~~all or some of the natural language patterns prepared in~~ a pattern dictionary having stored therein natural language patterns in pairs that include the source language pattern and the target language pattern, each pair being formed in a string with, at least a language name, a pattern name given as a left side member and a pattern component given as a right side member, the source and target language patterns being stored in advance and having a central element information prescribing a central pattern element in a feature restriction or a feature propagation on the left and/or the right side[[;]], the method comprising the following steps:

extracting at least one source language pattern and target language pattern from the pattern dictionary to be used in syntax analysis processing and syntax generation processing;

a pattern inspection step for inspecting also the extracted source language pattern and target language pattern to determine whether or not in terms of the feature restriction whether the right side member of the source language pattern conforms to natural language patterns picked up as the ones applicable for the process of syntax analysis and/or the syntax generation among the natural language patterns prepared in a pattern dictionary in advance meet a tree structure or not based upon the feature restriction during the syntax analysis processing and to determine whether or not the left side member of the target language pattern conforms to a tree structure based upon the feature restriction during the syntax generation processing; and

a pattern application step for applying the natural language patterns to the tree structure if the natural language patterns meet the tree structure and for propagating the feature restriction if the natural language patterns have the central element information.

Claim 32 (Original): A natural language processing method according to claim 31 wherein the pattern application step restricts the feature to be transmitted according to the definition which is defined per the nonterminal numeral and terminal numeral in transmitting feature information.

Claim 33 (Original): A natural language processing method according to claim 31 wherein the pattern inspection step and the pattern application step execute a pattern-meeting inspection on and a pattern application to feature variable applied as a feature restriction in natural language patterns.

Claim 34 (Original): A natural language processing method according to claim 31 wherein the natural language patterns registered in the pattern dictionary hold the feature restriction information in the form that logical operation can be easily executed.

Claim 35 (Currently Amended): A natural language pattern dictionary creation apparatus for creating a pattern dictionary adopted to a natural language processing apparatus for achieving a syntax analysis and/or a syntax generation by using natural language patterns with language name, syntax pattern name (left side) and pattern component (right side) list,

the natural language pattern dictionary creation apparatus comprising: a source dictionary which stores the natural language patterns all of which are described in a text data and has in some cases a central element information prescribing a central pattern element in a feature restriction or a feature propagation on the left and/or the right side; and

a restriction information form conversion means for ~~storing~~ reading out a feature restriction information of the natural language pattern ~~read-out~~ from the source dictionary ~~in the pattern dictionary, then~~ after converting a feature restriction data formed to achieve a logical operation that is executed on bit array data smoothly, and storing the converted data into the pattern dictionary .

Claim 36 (Currently Amended): A natural language pattern dictionary creation apparatus according to claim 35 wherein the restriction information form conversion

means comprise: a feature definition storage part for storing definition information on feature information consisting of feature name and feature value for restriction;

a feature restriction data format decision part for deciding the data format formed to achieve a logical operation ~~smoothly~~, based on the definition information; and

a conversion part for converting feature restriction information of the natural language pattern into feature restriction data formed to achieve a logical operation ~~smoothly~~, according to the decided data format.

Claim 37 (Currently Amended): A natural language pattern dictionary creation method for creating pattern dictionary adopted to a natural language processing method for achieving a syntax analysis and/or a syntax generation by using natural language patterns with language name, syntax pattern name (left side) and pattern component (right side) list,

the natural language pattern dictionary creation method comprising a restriction information form conversion means for ~~storing~~ reading out a feature restriction information of the natural language pattern ~~read-out~~ from the source dictionary, which stores the natural language patterns all of which are described in a text data and has in some cases a central element information prescribing a central pattern element in a feature restriction or a feature propagation on the left and/or the right side, then converting the feature restriction data formed to achieve a logical operation that is executed on bit array data and finally storing the converted data ~~in~~ into the pattern dictionary ~~after converting a feature restriction data formed to achieve logical operation smoothly.~~

Claim 38 (Currently Amended): A natural language pattern dictionary creation method according to claim 37 wherein the restriction information form conversion process comprises: a feature restriction data format decision step for deciding the data format formed to achieve a logical operation ~~smoothly~~, based on the pre-stored definition information on feature information consisting of feature name and feature value for restriction; and

a conversion step for converting feature restriction information of the natural language pattern into feature restriction data formed to achieve a logical operation ~~smoothly~~, according to the decided data format.